

# *NAVY MEDICINE*

November-December 2002



## *Operation Enduring Freedom*

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# NAVY MEDICINE

Vol. 93, No. 6  
November-December 2002

## Department Rounds

- 1 Navy Medicine in Africa  
*LT J.E. Ollivier, MSC, USNR*

## Features

- 4 Navy Researcher Tailors Fitness Programs for Aviation Search and Rescue Swimmers  
*D.M. Ryan*
- 7 Search & Rescue Corpsmen: Navy Medicine on Land, Air, Sea, and in a Clinic Near You  
*JO1 Scott New, USN*
- 9 Unconventional Medical Planning: Afghanistan Operations as a Blueprint for Navy Medicine's Future  
*LT Y.H. Aboul-Enein, MSC, USN*  
*J.M. Hores*
- 15 Steaming to Assist: Charlie Papa  
*LCDR T.R. Bilski, MC, USNR*
- 18 Navy Medicine's Connection to the Ghost of the Hindenburg  
*LCDR G.R. Cadle, MSC, USN*
- 20 Room at the Top  
*CAPT J. Bold, NC, USN (Ret.)*  
*CAPT A. de Savorgnani, NC, USN*  
*CAPT J. Huber, NC, USN (Ret.)*  
*RDML N. Lescavage, NC, USN*  
*CAPT C. Perry, NC, USN (Ret.)*
- 23 Ten Questions Patients Ask Their Dentists  
*D.M. Ryan*

## Forum

- 26 Navy Medicine's Focus is on the Future  
*LCDR R.S. Fry, MSC, USN*

## Book Review

- 29 Strong at the Broken Places  
*LT Y.H. Aboul-Enein, MSC, USN*

- 30 INDEX, Vol. 93, Nos. 1-6, January-December 2002

## A Look Back

- 33 Navy Medicine 1951

**COVER:** CDR Robert Hinks, MC, cuts away the wound dressing on a detainee inside the Kandahar holding facility as CDR Jim Richie watches, 19 Jan 2002. Story on page 9. U.S. Navy photo by IC1(SW) A.J. Caiola.

# Navy Medicine in Africa

LT Joseph E. Ollivier, MSC, USNR

Operational training missions to Togo and Ghana, Africa, that were postponed due to the tragedy of 11 September 2001, were finally executed on 11 April 2002, with the Reservists returning home on 27 April. The mission, "West African Training Cruise 2002 Mission Outreach Program (WATC-02) MOP," incorporated two teams of reservists from Fleet Hospital Dallas and Fleet Hospital Minneapolis, with additional reserve specialists being recruited from other Reserve units across the U.S. The overall objectives of the training exercise were to enhance and implement military interoperability and logistics, along with the exchange of medical expertise with the African military healthcare counterparts.

One of the primary accomplishments of these missions is the significant humanitarian aid afforded the villages visited. The mission to Togo brought a unique learning experience and the significant pathology was both new and very familiar.

## Geography

Togo is in sub-Saharan West Africa, located on the Gulf of Guinea between Ghana and Benin. Having been a former French colony, the official language is French. Togo is a center of commerce and trade in the region. For quite some time, phosphate mining was one of the most

important industries in the country until the decline of world phosphate prices and increased foreign competition.

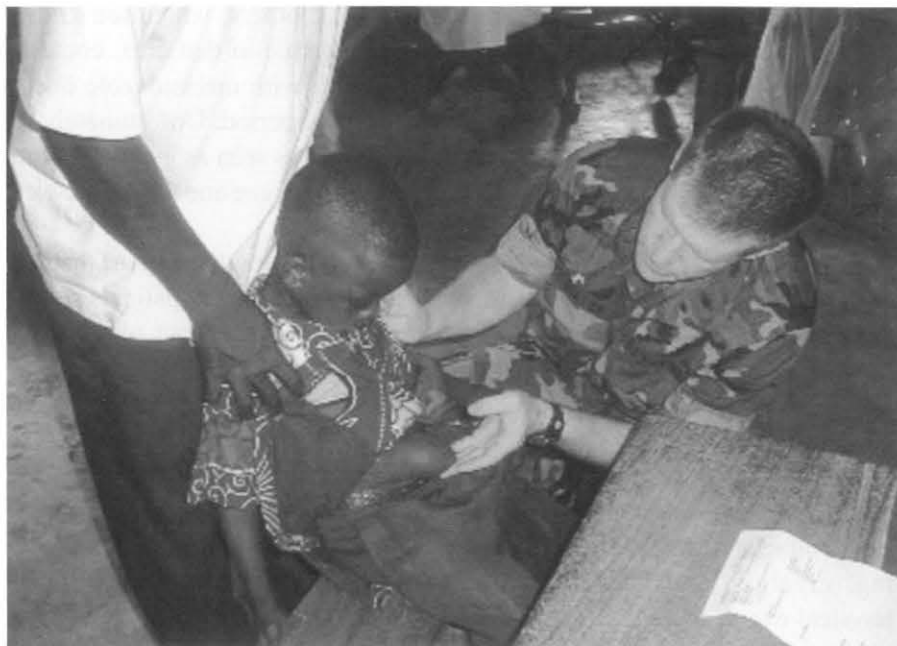
The economy is highly dependent on subsistence farming, which is about 40 percent of their GDP and constitutes the livelihood of about 75 percent of the labor force. The primary exports are coffee, cotton, and cocoa.

## Medicine

The mission to Togo focused on six healthcare areas: medical, optometry, dental, RX/glasses, immunizations, and medications which provided the medications prescribed by the clini-

cians. The number of patients treated was limited by the number of supplies brought along and the endurance of the personnel. These supplies were proportionally divided among the designated populations that were to be visited. The patients seen and treated was a cross-section of Togolese villagers, from newborns to the elderly, with the predominant group being adults.

Among all of the complaints discussed in the medical clinic, the most common appeared to be back pain. Despite being an agricultural nation, farmers still till the land in a rudimen-



A young child with an unusually large umbilical hernia that has gone untreated since birth.

Photo by the author



tary fashion using short hand tools and stooping to do their work. Mechanized farm equipment is noticeably absent. This presented one of the major complaints seen in the medical clinic, that of lumbosacral strain.

In Table A, 37 percent of all villagers examined had back pain as one of their primary problems, although most patients seemed to have multiple complaints. As seen by the age distribution (Table B) the predominant group affected were adults, although most age groups seemed to be afflicted to some degree. Men and women in the age group of 19 to 54 seemed to be equally affected, indicating that both shared in this form of agricultural labor in terms of tending to fields. Treatment for this condition constituted prescribing analgesics and non-steroidal anti-inflammatories, with consults to physical therapy to teach back exercises and stretching. Unfortunately, due to the culture and socio-economic conditions, changing the mechanism of repetitive strain was not feasible.

### Infectious Disease

Diseases that have been eradicated in the United States or suppressed are still quite prevalent throughout Africa, not to mention those that were seen for the very first time by American healthcare providers. Obvious diseases such as elephantiasis [lymphatic filariasis] and leprosy were seen in the advanced stages. Other infections were discerned by the symptomology presented by the villagers. These seemed to be of two categories, blood born and intestinal.

Malaria was a frequent complaint, with individuals complaining of periodic attacks of fever, chills, sweating, myalgia, and headaches. On physical exam, there was occasional evidence of anemia and splenomegaly. All age groups seemed to be affected.

Table A

	DERM	EYE	GI/GU	CIRC/RESP	INFECT DIS	WELLNESS	MUSCULO-SKELETAL
MEN	108	145	404	194	260	62	544
FEMALES	93	128	416	178	259	61	476
TOTALS	201	273	820	372	519	123	1020
% TOTALS	7	10	29	13	19	4	37

\*A number of patients had multiple complaints; therefore they were counted in more than one category.

Young children to the elderly were treated with Chloroquine. Tuberculosis, while still occurring in the U.S., was seen in far more advanced stages, where villagers presented with noticeable weight loss and cachectic appearance. They had obvious symptoms of dyspnea and hypoxemia. Intestinal parasitic infections seemed to be a ubiquitous problem, with complaints being abdominal discomfort, bowel movements with live worms, or bloody diarrhea. Although exact species identification was not performed, such infections as ascariasis, enterobiasis, *nector americanus* [hookworm disease], and others, which are known to be endemic in that area, could be eradicated with mebendazole over a 3- to 5-day period. Unfortunately reinfection was seen as inevitable until issues of hygiene and sanitation were addressed.

AIDS was another disease that was evident among many patients seen in the clinics. The impact of AIDS on the African continent cannot be understated; all of Africa has suffered. Togo's estimated AIDS statistics as evidenced from a 1999 study indicates that about 130,000 of adults and children were living with HIV/AIDS, with an estimated 14,000 deaths attributed to AIDS that year. The hardest hit were children, with approximately 63,000 being orphaned by the

disease. Life expectancy is about 49 years (source Joint United Nations Program on HIV/AIDS website at [www.unaids.org](http://www.unaids.org)).

There were villagers presenting with acute illnesses such as upper and lower respiratory infection, along with individuals who were suffering from obvious forms of allergic rhinitis. Several villagers presented with abscesses and evidence of joint effusions that were drained and/or aspirated. Hernias of various types were evident. Unfortunately, the means to repair these hernias were not in place. Perhaps on future missions this could be accomplished with the assistance of the Togolese military healthcare system.

Probably the most profound impact the mission had on the villagers was immunizations. The response to these clinics was also impressive. Optometry performed eye examinations, and fitted individuals with eyeglasses and sunglasses for those who had unusual photosensitivity. The dental clinic extracted damaged and decayed teeth.

One of the most profound effects the mission had on patients was immunizations. Diseases such as polio, tetanus, and tuberculosis still are quite common in Africa with a high morbidity and mortality rate. The infant mortality rate is about 82 deaths per 1,000 live births, with diseases taking



a significant toll. Reservists deploying for this mission had to be up-to-date on all their immunizations and have their immunization cards, which required the international stamp showing they had received their yellow fever before they were allowed to enter the country. These included Hepatitis A and B, typhoid, yellow fever, tetanus, and meningococcal. All these diseases are still common in that region of Africa. While in country, all reservists of the Togo contingent were placed on Mefloquine, an anti-malarial medication that was taken once a

week starting 1 week before we left and continued 3 weeks after returning.

The mission to Togo accomplished many objectives and gave reservists valuable experience and training in an underdeveloped country where logistics, teamwork, and cooperation with a foreign military were critical. Over all, these reservists came together in a cohesive group that functioned well as a unit and displayed the professionalism and enthusiasm that made this operation a success. The Togolese military and public officials made an

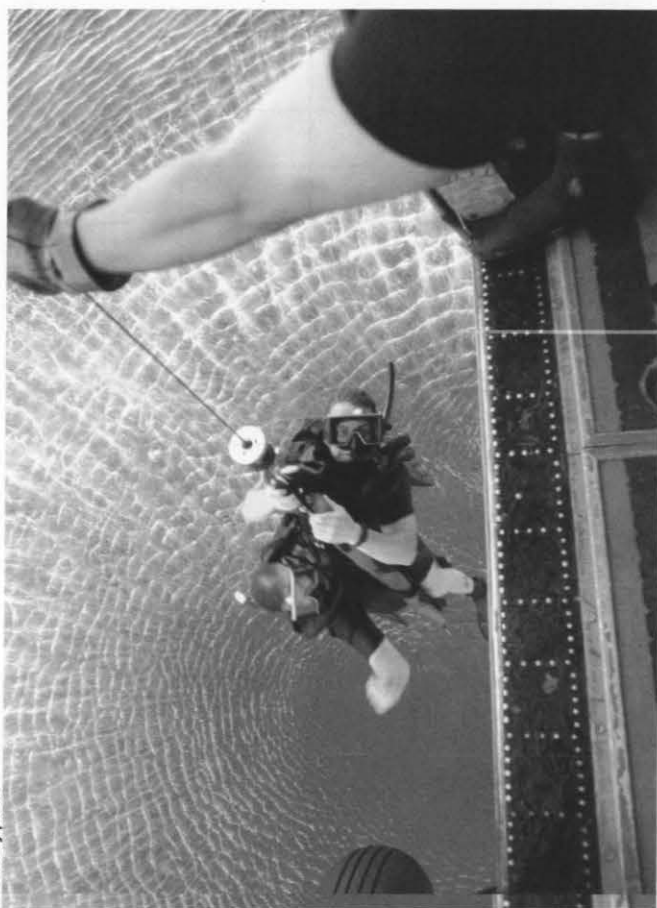
extensive effort in making this mission successful and giving American service personnel the sense that they were welcome and that their visit was extremely appreciated.

The success of the objectives and goals that were met on these operational missions formed a foundation of friendship and cooperation that is certain to extend well into the future and leave a positive impression of America and the Navy with these two African nations. □

LT Ollivier is in private practice in Idaho. He is attached to Naval Hospital, Bremerton, WA, out of Naval Reserve Center Pocatello, ID.

Table B									
Musculoskeletal Related Patients									
Villages Visited									
Females Seen	Koveto	Lay Bassito	Seg Bato	Lili Kope	D'ade Kope	Hompou Kope	D'Anane	Logo Kope	Total
0 to 4	0	1	1	1	0	1	0	0	
5 to 11	1	0	0	0	0	1	0	0	
12 to 18	3	1	2	4	2	2	4	2	
19 to 54	47	42	32	49	41	48	46	35	
>54	19	23	17	12	12	44	42	18	
<b>Total</b>	<b>61</b>	<b>67</b>	<b>52</b>	<b>66</b>	<b>55</b>	<b>96</b>	<b>92</b>	<b>55</b>	<b>544</b>
Males Seen	Koveto	Lay Bassito	Seg Bato	Lili Kope	D'ade Kope	Hompou Kope	D'Anane	Logo Kope	Total
0 to 4	0	0	0	0	0	0	0	0	
5 to 11	1	0	0	2	2	1	4	1	
12 to 18	0	2	2	5	2	1	2	4	
19 to 54	42	22	49	75	44	39	52	21	
>54	18	8	10	12	7	14	27	8	
<b>Total</b>	<b>61</b>	<b>32</b>	<b>61</b>	<b>93</b>	<b>55</b>	<b>55</b>	<b>85</b>	<b>34</b>	<b>476</b>
<b>Overall Totals</b>	<b>131</b>	<b>99</b>	<b>113</b>	<b>160</b>	<b>110</b>	<b>151</b>	<b>177</b>	<b>89</b>	<b>1020</b>

# Navy Research Tailors Fitness Programs for Aviation Search and Rescue Swimmers



U.S. Navy photo

A rescue swimmer team is hoisted aboard an HH-60 "Seahawk" helicopter from Helicopter Anti-submarine Squadron SEVEN (HS-7).

Arriving on the scene by air within an hour of the alert call, the Navy Search and Rescue (SAR) team views the devastation caused by the river rising 45 feet above its banks. Buildings disappear underwater; rooftops are the only sign that a small town is beneath the floodwaters. The SAR swimmers spring into action. As the crisis below unfolds, the crew plucks stranded people off roofs, barns, and porches, some with serious injuries needing immediate medical treatment. Late in the evening, while hovering only 5 feet from high tension power lines in a heavily forested area, the crew rescues a family of three. The SAR team lives up to its credo, "So others may live."

Whether assisting in civilian rescues during a natural disaster, rescuing downed military pilots, or responding to a man-overboard call, the Navy's 1,800 Aviation and Surface Rescue Swimmers routinely perform physically demanding rescues in hostile environments—above raging rivers, at sea or on land. That's their job.

One person who knows exactly how physically demanding the job of a SAR swimmer is, is LCDR Mike Prevost, MSC, from the Naval Aerospace Medical Research Labora-

tory in Pensacola, FL. Prevost is an exercise physiologist who headed a research team that did a task-based occupational analysis of the many physical activities performed by aviation SAR swimmers in the fleet. His research established a clear relationship between individual tasks and the level of physical fitness required to perform each task. The result of his research effort is a new physical fitness program that includes training and maintenance components and testing standards. The new program will be officially implemented into the SAR community in April 2003.

Commenting on the success of his study, Prevost said, "Our goal was not to build a general physical fitness program for all Sailors and Marines; our goal was to design a fitness program that makes a great rescue swimmer. The key to this whole program is that everything is based on documented job tasks and training swimmers to perform those tasks well."

The new fitness program was first tested at the Naval Aircrew Candidate School (NACCS) early this year by students slated to move on to the Aviation Rescue Swimmer School (ARSS). According to Senior Chief Petty Officer Ken Thompson from the ARSS, "this new program has changed the way we deal with physical fitness. We are now looking at physical conditioning based on identified tasks performed in the fleet. We introduced the new PT program at NACCS in March and in just 4 months we noticed a 35 percent increase in the number of students qualifying on the fitness in-test for ARSS," said Thompson. "We introduce students to the program with the goal of maintaining their fitness level throughout their careers."

Thompson pointed out that it takes nearly a year to train a SAR swimmer, beginning in recruit training, moving on to NACCS, then to ARSS. Once in the fleet, more than 90 per-

cent remain swimmers until they leave the Navy.

While doing this study, Prevost didn't spend much time in the laboratory in Pensacola. He began the project with students from ARSS by joining morning runs, performing rigid calisthenics sessions, and jumping into the pool for distance swims to experience, first hand, the training experience. From the schoolhouse, he headed out to the fleet to participate in several SAR evaluations and watch swimmers in action. He videotaped water techniques like swimmers deploying from helicopters or hoisting survivors in rescue litters up into helicopters. He also taped rescue exercises like tree extractions where swimmers climbed 60 feet up a tree with a litter to rescue a 180-pound dummy posed as an injured pilot who parachuted into a tree.

Prevost engaged SAR subject area experts in developing surveys and questionnaires, conducting focus groups and interviews, and analyzing a multitude of survivor rescue reports. Input from the surveys and other information gathering techniques resulted in a prioritized list of tasks performed in the fleet. From the data gathered, Prevost analyzed each task and determined what muscle groups were involved, what exercise components were needed for the new training program, and what testing items should be included in the new standards.

For aviation rescue swimmers, carrying a survivor in a litter over difficult terrain was one of the most difficult tasks. This included hiking over rugged terrain (sand, mountains, snow, mud, dense forests) for 100 to 300 feet with gear weighing up to 80 pounds (i.e. litter, ropes, rappelling equipment, tree-climbing spikes, etc.), and carrying out a survivor in a litter or using



Students practicing SAR swimmer approaches at the Aviation SAR Swimmer School in Pensacola, FL.

U.S. Navy photo



the fireman's carry. To simulate these tasks in training and testing, Prevost designed the dumbbell carry. The student must carry two 50-75 pound dumbbells for 150 feet (with obstacles) followed by lifting and placing the dumbbells on a 4-foot-high platform.

Prevost pointed out, "Analysis showed that several tasks required one- and two-handed lifting and carrying weights of 10-250 pounds. The carrying tasks were performed over varying types of terrain from steep, rocky grades to flat asphalt. As part of the new standards evaluation, the dumbbell carry is designed to test the ability to lift and carry a variety of objects. The two step-over obstacles ensure that the swimmer has the strength and balance necessary to negotiate small obstacles while carrying the minimum load. This simulates stepping over rocks, logs, or branches. The 4-foot-high platform lift simulates

lifting an object and placing it in the aircraft."

A significant number of pulling tasks were also identified as critical to the job. These tasks require a significant amount of strength in the biceps, rear deltoids, and latissimus dorsi muscles groups as well as significant grip strength to maintain control when carrying items or survivors.

The most difficult pulling tasks identified involved tree extractions and rappelling. Tree extractions require the SAR swimmer to pull his or her own bodyweight up a tree. Although most of the climbing is done with the legs, the arms are used extensively. Steep grade rescues such as a cliff rescue involve rappelling down and manually pulling the survivor up a steep grade and securing the survivor into a rescue litter.

If rescue swimmers can't pull up their own bodyweight, it is unlikely that they will be able to accomplish those

tasks," Provost pointed out. "Pull-ups are a good test of upper body strength and require significant grip strength and are positively correlated with other job tasks such as carrying loaded boxes."

To sum up his view of the research effort, "This is the most rewarding project I have done at NAMRL because it will impact the way the fleet does business. A real rewarding experience from beginning to end," said Prevost.

According to Master Chief Petty Officer Frank Nelson, Chief of Naval Operations Enlisted SAR model manager, "LCDR Prevost developed an entire program which can begin a lifestyle change for personnel entering the Navy and stay with them for their entire career. We now have a credible fitness program designed to build up our fitness, test it, and maintain it, all based on what we do for a living." □

—Story by Doris M. Ryan, Medical Research and Development Division (M2), Bureau of Medicine and Surgery, Washington, DC.



U.S. Navy photo

Students prepare to don flippers and masks for another exercise.

# Search & Rescue Corpsmen

## Navy Medicine

### on Land, Air, Sea, and in a Clinic Near You

**T**hey train every day to be the best. Sounds like a commercial, but to these Sailors, it's a way of life. Like many hospital corpsmen, they work with the sick and injured, but how they work with them is what separates a hospital corpsman from a Search and Rescue (SAR) corpsman. Working alongside Naval Air Station Pensacola's Search and Rescue unit, these SAR corpsmen help provide 24-hour, all-weather, search and rescue capabilities in support of Training Air Wing's 5 and 6, helicopter SAR services for civilian crises, Navy/Air Force water survival drills, and vital operations.

Five SAR corpsmen, all nationally registered Emergency Medical Technicians from Naval Hospital Pensacola's branch medical clinics at Naval Air Station (NAS) and Naval Air Technical Training Center (NATTC) Pensacola, are assigned to the base rescue unit. They have the ultimate duty—flying in support rescue operations and rendering medical assistance at a moment's notice.

In order to maintain the highest possible level of readiness, SAR corpsmen carry out an extensive training schedule, according to HMC(AW/NAC/FMF) Walter Kane, leading



Photos by author

**Naval Hospital Pensacola corpsmen assigned to NAS Pensacola Search and Rescue return to helicopter after a land-based SAR medical check exercise.**

chief for the SAR corpsmen at the NATTC Branch Medical Clinic. "We have a wide variety of training (exercises) and lectures that we have to conduct in accordance with our safety and training manuals to maintain our certifications."

The real-life situation training is conducted on land and over the waters of the emerald coast of northwest Florida alongside SAR swimmers and

pilots from the NAS Pensacola unit. It doesn't matter what time it is, "we conduct training exercises during the day and night," said HMC Kane. "To be ready for an emergency rescue, we have to train in all possible conditions."

With a training program this intense, physical fitness plays a key role in the life of a SAR corpsman. Basic naval fitness requirements are not

enough for these Sailors, so an intensive physical fitness program is put into place "to better prepare the team for what we might encounter on a rescue," said HMC Kane. "We PT 3 days a week as a group," he said. "Most of us also PT on our own time." The sessions are wearing with emphasis on strength training and cardio.

"When we're on a rescue, we take a lot of equipment with us," said HM3 Joshua Schuster. He recently completed a SAR Medical Check evaluation as part of requirements to become SAR-qualified.

"Our 'B' (basic) bag holds all our medical equipment and weighs close to 50 pounds," he said.

On each flight, SAR corpsmen also take along oxygen bottles and a survival vest, in case of a crisis. If that day ever comes, SAR corpsmen are also qualified to assist in flight operations.

"They aren't qualified to fly the bird (UH-3H helicopter), but each one is utility-crewman qualified," said Aviation Structural Mechanic First Class (AM1) Nathan Sutrick, SAR Crew Chief. "If there's a fire in flight, we need them to know how to handle the situation because they're considered part of the crew."

Being part of the crew means that each corpsman is required to know how to set up aircraft rescue equipment and be able to use it, and assist pilots by watching gauges and advising as to the helo's instrumentation and related flying conditions, especially during night flights

"The corpsmen have a really tough job. Not only do they perform their medical duties, they have to know just as much about the bird as we do," AM1(AW) Sutrick said.

But knowing the "ins-and-outs" of the helicopter and being able to save a life at a moment's notice isn't where

a SAR corpsman's day ends. Not even close. They have to be good time managers since another full-time job has to be fulfilled.

"We have a dual role," said HMC Kane. "We're required to maintain rescue readiness through training and physical fitness, but we also work at the (NATTC) branch medical clinic as well."

While working at the clinic, SAR corpsmen continue to keep their emergency medical skills sharp. "We try to maintain our SAR corpsmen in areas that are beneficial to their skills, like emergency medical technicians (EMTs) and paramedics," said HMC Kane, who was on scene at two recent aircraft mishaps in the Gulf of Mexico. "Our SAR corpsmen are always where the action is, and I'm proud of them."

HM1 Robert Bryson is no stranger to the operational side, having been involved in three newsworthy SAR ventures that included the rescue of two fishermen adrift in the Gulf, a Navy helicopter's hard-landing in nearby Santa Rosa County, and the treatment of another fisherman who had an anaphylactic reaction to a poisonous scorpion fish. An anaphylactic reaction is a sudden, severe, potentially fatal, allergic reaction in which symptoms may occur within minutes to 2 hours after contact with the allergy-causing substance.

Being able to balance two demanding jobs, where at any moment someone's life may be in your hands, takes a certain breed of Sailor. It takes a Search and Rescue Corpsman where at the end of the day, after all the training, you know you're the best. □

—Story by JO1 Scott New, Public Affairs Specialist, Naval Hospital, Pensacola, FL.



HM3 Jeremy Turner, keeps a "patient's" head and neck braced as HM3 Joshua Schuster, performs medical assistance during a land-training exercise. HMC Walter Kane (right) and HM2 Jeramy Campbell evaluate the corpsmen during the training evolution.



# Unconventional Medical Planning



Photos by LT Jason Dardy, MSC, USN

CDR Smallwood, LTJG Jette, and CAPT Hinkson in one of the medical tents, Kandahar Airport.

## Afghanistan Operations as a Blueprint for Navy Medicine's Future

LT Youssef H. Aboul-Enein, MSC, USN  
Janice Marie Hores

As we observe the first anniversary since operations began in Afghanistan, we would like to highlight the experiences of those who planned the medical support of that operation. The lessons learned from those returning from the global war on terrorism will help shape a new direction in Navy operational medicine.

Operations in Afghanistan will be the subject of study in military schools for decades to come. Almost every branch of the armed services has had to alter or completely do away with existing doctrine in fighting this new war against terrorism. Navy medicine is not immune to these changes in action. This article looks at the means in which medical sup-

port was organized to the military requirements of Task Force 58 in Afghanistan.

Recently, CDR Eugene F. Smallwood, MSC, returned from a 6-month temporary duty (TAD) assignment to the staff of the U.S. Naval Forces Central Command (NAVCENT) Surgeon in Manama, Bahrain. He spent an afternoon with

the staff of *Navy Medicine* magazine giving valuable insight into the planning, analytical thought, and teamwork that went into deciding medical capabilities appropriate for Forward Operating Base (FOB) Rhino and Kandahar Airport in Afghanistan.

As CDR Smallwood recalled, “I arrived 10 October, 2 days after the start of the war, and spent my first 2 weeks getting oriented with the staff and operations at NAVCENT. The staff was comprised of CAPT Montgomery Hinkson, MC, NAVCENT Surgeon, CDR David Gray, MSC, Deputy Force Surgeon/Medical Planner, and LT Jason Darby, MSC, NAVCENT N5 Plans Division Medical Planner.”

CDR Smallwood recounted how he first heard about operations in Afghanistan through two unofficial sources in early November—LT Darby and LTJG Michael Jette, 26th Marine Expeditionary Unit (Special Operations Capable)(MEU(SOC) medical planner. LTJG Jette and CDR Smallwood discussed future operations into Afghanistan and began collaborating on a plan to rectify the potential void in medical support.

Armed with knowledge of impending operations in Afghanistan, the NAVCENT Surgeon’s staff could now provide medical input into the creation of Task Force 58. This task force was comprised of both USS *Bataan* (LHD-5) and USS *Peleliu* (LHA-5) Amphibious Ready Groups (ARG). Embarked aboard these two ARGs were the 26th and 15th MEUs (Marine Expeditionary Units). This Task Force had six amphibious warships. *Bataan* and *Peleliu* each carried 3,000 Marines and Sailors. Each also carried a fleet surgical team, ship’s company medical, and Marine medical assets capable of delivering up to Level II care. Level II care pro-



PAO/Media work section in the Kandahar Airport terminal.

vides initial resuscitative care in the form of surgical and medical resuscitation.

#### Development of Courses of Action

Once the order came from the Joint Chiefs of Staff through U.S. Central Command, the Task Force conducted Crisis Action Planning, a methodical process by which all specialists on the staff develop courses of action (COA) to accomplish the given mission. This mission was to conduct a series of raids from off the coast of Pasni, Pakistan, 400 miles deep inside Afghanistan.

“Four COAs were developed. COA 1 would conduct raids inland, last 6 hours, and involve platoon size teams including one general medical officer and two field corpsmen. The COAs gradually increased in time of execution and number of personnel involved. COA 4, the one finally implemented, involved a Battalion Landing Team of 900 to 1,100 Marine riflemen who secured the objective and set up a forward operating base (FOB) from which further operations could be carried out. This base camp would even-

tually be called FOB Rhino,” explained CDR Smallwood. It was clear that the Marine combatant commander did not want a large medical footprint in FOB Rhino.

Another major constraint was the Level II casualty receiving and treatment ships (CRTS) *Bataan* and *Peleliu*, which were 400 miles from the objective, well beyond fuel capability of helicopters. Additionally, this was also well beyond the flight time encompassing the golden hour of trauma management (from injury to surgical intervention). The CH-53E helicopter has a range of about 360 miles. This meant that something beyond Level I care (self or buddy aid, HM or GMO) needed to be available at FOB Rhino. This robust emergency surgical care was beyond the scope of Marine medical assets being sent to Afghanistan. Sending the Fleet Surgical Team capable of Level II resuscitative surgery inland was not an option (although it was considered) as it would degrade the capability of caring for personnel afloat. A 16-person FST forms the basis for Level II surgical care aboard *Peleliu* and

*Bataan*. A surgical company was too heavy to set up and went against the Task Force commander's wishes for a small footprint ashore.

Armed with initial information provided by LTJG Jette on the proposed composition of specialties, the NAVCENT Surgeon's staff, the medical planners attached to the staff of the Chief of Naval Operations, and medical planners with the Joint Staff came up with the right mix of medical specialties for this mission.

"It was lucky that the MEU surgeon aboard *Peleliu* was an emergency medicine physician, but even with this capability it was decided that he would be quickly overwhelmed with casualties and needed augmentation," recalled CDR Smallwood.

Taking the information provided by LTJG Jette and refined by the NAVCENT staff, the medical team would have 24 individuals whose specialties included general surgery, emergency medicine, anesthesia, operating room nurses, and specialized corpsmen to support them. "We finally convinced the Task Force 58 military planners of the need for this capability on the eve of Thanksgiving. From what I understand, individuals selected for this mission were told as they were at their dinner tables enjoying turkey day," said Smallwood.

However, before any of this took place, a Request For Forces (RFF) needed to be generated from the MEU. Again, LTJG Jette was instrumental in helping this come to fruition. The final composition, as recommended by LTJG Jette and approved by NAVCENT, was one surgeon, one anesthesiologist, two critical care nurses, two emergency medicine physicians, two emergency medicine nurses, one physician's assistant, and one independent duty hospital corpsman. The request was so well received

it was decided to double the number and assign the additional team to 15th MEU(SOC).

This tailor-made, task-organized medical team left the United States for Bahrain and then, thanks to Task Force 53, the Logistical Unit, they arrived at FOB Rhino aboard a logistics flight. The basis of the planning was to offer basic emergency resuscitative surgery, stabilize the injured, and then medically evacuate them for further reconstructive or restorative surgery. The phrase used by the NAVCENT medical planners was "patch and plug." "This was to be the extent of our medical-surgical capability at FOB Rhino, just enough emergency surgical care to stabilize for medical evacuation out of theater or to the large amphibious ships," said Smallwood.

On 25 November 2001, the Marine Battalion Landing Teams entered Afghanistan and secured what would become FOB Rhino. The initial medical support during this phase was comprised of general medical officers and field corpsmen who were part of the Battalion Landing Team. Preventive medicine technicians then followed. The task-organized emergency surgical teams augmented an aid station set up by medical personnel of the Marine Expeditionary Unit's Force Service Support Group, the MEU's logistical arm.

The medical assets of the MEU and augmentees were set up during the buildup phase from 26 November to 1 December. Due to difficulties in getting the operating room equipment, the emergency medical teams augmenting could not begin operating on casualties until 3 December. Aware of limited resources, the small footprint and the austere operating environment, LTJG Jette further requested the addition of an Air Force Aeromedi-

cal Evacuation Liaison Team (AELT) and Mobile Aeromedical Staging Facility (MASF). This included the Critical Care Air Transport Team (CCATT). NAVCENT concurred and an in-theater request was submitted to the Air Force component.

### Medical Evacuation Issues

Medical planners must always think about options. One important option is the analysis of medical evacuation routes. "The first medical evacuation route established was the 400 miles from FOB Rhino to *Bataan* and *Peleliu* which took 4 hours," Smallwood pointed out. This medical transportation would be accomplished by helicopter assets on-board the two large amphibious ships. Each MEU normally carries 12 CH-46s and 4 CH-53E helicopters. The range of the CH-53E, as mentioned, is about 360 miles and the CH-46 is 180 miles. CDR Smallwood pointed out that had the V-22 Osprey been on-line, the problem of refueling would have been eliminated. Moreover, the length of time needed for evacuating casualties to the warships would have gone from 4 hours to 1 or 2 hours. The maximum range of the V-22 Osprey is 515 nautical miles with a maximum flying speed of 510 knots.

Looking at fixed wing aircraft alternatives for Casualty Evacuation (CASEVAC), "U.S. Air Force Central Command (CENTAF) indicated that a C-130 aircraft could medically evacuate casualties from FOB Rhino to Level III medical facilities in Oman, Bahrain, and Saudi Arabia in 3 to 4 hours, the same amount of time it took to evacuate casualties to the Level II facilities aboard ship," explained CDR Smallwood. This option was reserved for the most seriously wounded casualties who required referral directly to Level III as opposed



to Level II. The C-130 is the only aircraft capable of landing on the packed desert strips of Afghanistan.

Exploring the Air Force capability to land C-130s for medical evacuation gave clinicians operating in Afghanistan an option to evacuate patients from Afghanistan to Level III surgical capabilities in Saudi Arabia and Oman in 3 hours. They can also access Level IV capabilities in Europe in less than 6 hours.

CDR Smallwood explained that Afghans fighting side by side with U.S. Special Forces units who were injured in combat were treated at FOB Rhino, evacuated to the ships, and eventually evacuated further to Landstuhl U.S. Army Regional Hospital in Germany for more definitive care. A handful of Afghan Northern Alliance fighters went all the way to Walter Reed Army Medical Center in Washington, DC, for treatment.

### Medical Supply Issues

Knowing the task organized emergency surgical team was arriving in country, you would like the 18,000-pound Operating Room 639-640 Authorized Medical Allowance List (AMAL) to be shipped and be waiting for the arrival of the augmentees. However, logistics is one of the most challenging aspects of the war in Afghanistan. Items had to arrive at Pasni, a coastal village in Pakistan with an airstrip that had a Task Force 58 Logistical Detachment and from there were flown to FOB Rhino, 375 miles to the north. In any case, the operating room equipment arrived on 3 December.

Ideally, an AMAL is brought in and the medical staff begins treating or operating on patients immediately. This is easier than it sounds. Typically, medical personnel are unfamiliar with the equipment in the sealed

containers or, worse, items that are supposed to be in the AMAL are not there. Medical planners have to plan for this reality and arrange for re-supply.

The Combined Forces Land Component Commander (CFLCC) Single Integrated Medical Logistics Manager (SIMLM) at Camp Doha, Kuwait, handled re-supply for "Operation Enduring Freedom" in Afghanistan. Anything the SIMLM could not provide was sent to a Joint Supply Depot in Pirmesanse, Germany, co-located near Ramstein Air Force Base. Still, medical planners had to improvise. Certain needles, drugs, tips for nebulizers, and other brand-name medical supplies that the augmentees, Marines, or ship's medical needed and could not wait for the SIMLM system to obtain was acquired locally in Bahrain by the NAVCENT staff and shipped to the CRTS. Additionally, HMC Loren Halsey, 26th MEU(SOC) aboard *Bataan* provided much needed Class VIII re-supply while liaising directly with Pirmesanse.

### Did All This Medical Planning and Effort Pay Off?

On 5 December 2001, 2 days after the arrival of the medical equipment, an errant 2,000-pound satellite-guided bomb exploded 100 yards from U.S. Special Operations teams, killing three Americans and five anti-Taliban Afghan fighters. Approximately 20 Americans and an equal number of Afghan allies operating with Special Forces units were injured. "There were so many casualties, some went to FOB Rhino where they were stabilized and sent to *Bataan* and *Peleliu*. Some went on C-130s to the Air Force Expeditionary Medical system for evacuation to Europe, while others went through the Special Operations pipeline that I am not privy to," de-

scribed CDR Smallwood. Those ending up at FOB Rhino received emergency surgical intervention. Others received enough medical intervention to stabilize them before they were evacuated for resuscitative surgery aboard the two ships.

FOB Rhino medical assets also treated three Marines wounded by an Afghan mine as explosives and ordnance personnel were clearing Kandahar Airport. One Marine sustained a hand injury and another had shrapnel that penetrated his ear and perforated the eardrum. There were also two helicopter hard landings resulting in a broken leg, eye, and spinal injuries.

FOB Rhino's facilities existed from November 2001 to January 2002. "The packing process was smooth and took less than 6 hours to set up and re-establish the medical/surgical unit in Kandahar," said CDR Smallwood. This is a testament to the mobility of the medical team and its ability to keep up with Marine forces operating in the area.

At Kandahar, Task Force 58 seized the airfield. Once secured, the next wave included the 26th MEU Surgeon, an emergency medicine physician, nurse, and the Battalion Landing Team general medical officer. All forces, Special Operations Forces, and Air Force would arrive shortly thereafter. What medical operations took place was minimal until LTJG Jette could phase additional capabilities forward within a 72-hour window. Within 120 hours, the USMC task-organized team, the AELT and MASF were operational. LTJG Jette further requested an Army Forward Surgical Team (FST) which was approved by NAVCENT and forwarded to CFLCC for action. This truly joint medical facility brought an amazing array of medical capabilities to the troops and

allies serving in the field and to the detainees being held at Kandahar Airport. Each Army FST brought two operating rooms and its supplies and personnel. According to CDR Smallwood, the 26th MEU established an OR and treatment tent in an isolated area cordoned off for the al-Qaeda and Taliban detainees. Later another five-man team from another

Army FST was sent specifically to address preventive medicine and pre-evacuation issues within the detainee camp.

### **The Move to Kandahar Airport**

The joint medical capability at Kandahar was the medical clearing area for Taliban and al-Qaeda detainees. They were first medically

screened at Kandahar before being flown to Camp X-Ray at Guantanamo Bay, Cuba. "The fear of tuberculosis was very real. Surgeons who operated on combat wounded Afghans could not use the same instruments and equipment over again on U.S. personnel, and flight crews were reluctant to take TB cases for evacuation because no protocol had been established dealing with this airborne disease in a pressurized and confined airplane cabin," CDR Smallwood pointed out. Eventually, U.S. Central Command guidance was received on how to handle these cases.

"The second Army FST was married to the task-organized Marine Shock Trauma Platoon (Minus/Plus) and the Air Force mobile staging facility," said Smallwood. So a critical patient would get emergency care from the Navy/Marine Corps as Army and Navy surgeons scrub up to operate. The Army had four ORs and the Navy had one OR. After receiving resuscitative surgery and being stabilized, the Air Force medical teams, which included a flight nurse, would prepare this casualty for medical evacuation by C-130 to the Arabian peninsula or Europe. We often talk about being "purple," in the Joint Operations environment. Nothing symbolizes this more than the medical staff of the three services cooperating and bringing their own expertise into saving lives in the Joint Operations Area Afghanistan (JOAA).

### **Lessons for the Future**

The seizure of FOB Rhino, and the subsequent move further inland to Kandahar, represents the execution of the longest amphibious airfield seizure in the history of the Marine Corps in terms of ship to objective maneuver.(1) There are many questions Navy medicine needs to ask.



Photo by PH2(AW/SW) Andrew Meyers

HM3 Nick P. Brown reads about his unit featured on the cover of *USA Today* on 18 December 2001. This was the first mail from his family in 3 weeks.

What is the purpose of the 500- or 250-bed fleet hospital in the current environment? Are we medically configured to fight the last war in the Fulda Gap or Desert Storm or do we need something new, something lighter? Does the hospital ship need to get smaller and keep up with the amphibious or carrier groups?

"The President said we are fighting an unconventional war," explained CDR Smallwood. "We can no longer say a hospital ship or fleet hospital will perfectly fit this type of engagement or battle, thinking in terms of capabilities and task organizing specialties into a flexible and light weight team is the future of Navy operational medicine."

This means Navy medicine needs to realize that warfare will be fought in a non-conventional, non-doctrinal manner. This means that neat medical packages cannot be taken off the shelf and be effective. They will need to be flexible in organization to meet the contingency. The future means that medical capabilities must be much lighter and more mobile. We can learn from other services. The Air Force's Expeditionary Medical (EMED) Support Packages come in a basic 1 operating room, 4-bed, 10-bed, and 25-five bed package and has a cut and paste option that delivers to the battle environment exactly what is needed by the warfighter.

"We need to push the Forward Resuscitative Surgical System (FRSS) now," explained CDR Smallwood. The 1st Marine Expeditionary Brigade (MEB) had used this experimental surgical trauma system in Exercise Bright Star in Egypt, 1 month before arriving in Afghanistan. The FRSS was developed by the Marine Corps Combat Development System and is staffed by 8 medical personnel caring for up to 18 patients in

a 48-hour period without medical resupply. "The FRSS needs to be thought of not as necessarily a stand alone system but one that is integrated into the Medical Battalion Surgical Companies not replacing them," explained CDR Smallwood, "but with a connectivity that allows plugging in a radiology unit or other capability as necessary. Think of it as a Lego concept where an ICU, labs, holding wards, or more ORs can be connected if necessary to expand upon an already established capability should the scenario warrant such". The FRSS has great potential and needs to come on-line in the field now where it can receive a baptism under fire as opposed to an exercise scenario. Incidentally, the FRSS can be carried in a two "humvee" vehicles with two trailers attached. The NAVCENT Surgeons in Bahrain did explore the option of requesting this developmental medical capability, but it was still in the prototype phase of testing and development.

Another question involves the development and implementation of a new Marine Corps system. For example, how does the V-22 Osprey change the way we conduct medical care? Will it shorten helicopter times and extend the range to where all we would need is a general medical officer, an independent duty corpsmen, and two field corpsmen? What about enroute care? Navy medicine overcame many obstacles in this unique and unprecedented mission developing innovative ways of task-organizing medical support for light infantry and counter terrorism operations in Afghanistan.

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Coalition partner's (Australian) special forces vehicles. Kandahar Airport.



# Steaming to Assist Charlie Papa

LCDR Tracy R Bilski, MC, USNR

Our new motto, “Steaming to Assist: Charlie Papa,” is especially appropriate for the Navy medical personnel assigned to 1st First Force Service Support Group (FSSG). We became living examples of this statement on 23 November 2001—Thanksgiving Day. A “pack your bags” phone call from the Executive Officer (XO), 1st Medical Battalion, started the process, which sent 12 medical personnel from Naval Hospital Camp Pendleton and Naval Medical Center San Diego to Afghanistan 40 hours later. The team had to be as small, light, and mobile as possible, given the logistics of this Marine Expeditionary Forward Operating Base (FOB).

The Marines of Joint Task Force-58 established the FOB after Special Forces cleared Taliban members from this site. Later, this FOB was disclosed as Rhino (the national and international media dubbed it Camp Rhino). It was a compound with a desert airstrip in Southern Afghanistan and was 400 miles from the closest Navy ship. The mission was to secure this area and hold it for follow-on missions. The closest Level II care was located on USS *Peleliu* (LHA-5) and USS *Baatan* (LHD-5) again, 400 miles from Rhino. The transport time to the ships was 3-4 hours by CH-53, with in-flight refueling required. This distance was from Rhino, not from the potential outlying areas where casualties were ex-



Medical Team, FOB Rhino.

Photos courtesy of author

pected. Needless to say, the “golden hour” from wounding to surgical care would be greatly exceeded.

As the planning for the mission to Rhino took place, it became increasingly apparent to the commanders that resuscitative surgical capability was needed at Rhino. Thus, complements of medical personnel and equipment to support this were assembled both from 1st and 2nd Medical Battalions and were expediently deployed to their respective MEUs.

The FOB and its location were fraught with many problems, none of which proved insurmountable for the Marines. Expeditionary Maneuver Warfare (EMW) has become one of the primary war fighting tactics for the Marine Corps both now and in future conflicts. EMW, however, only proposes to move 200 nautical miles inland. Thus, Rhino would prove to

be one of the most difficult logistical chains in Marine Corps history. The airstrip required 8-10 hours per day of repair by a very capable Seabee contingent (NMCB 133). Fixed wing aircraft landed only at night for the most part, which severely limited the amount of supplies brought in to Rhino on a daily basis (ammunition, vehicles, weapons, food, water, generators, and communication equipment, to name a few). The only consumable food and water were MREs and bottled water. This meant strict rationing and no waste. This also meant no showering or bathing. Several preventive medicine technicians, who worked tirelessly around the clock to ensure the good health of the troops, strictly enforced the hygiene rules. Consequently, the incidence of DNBI (Disease Non-Battle Injuries) was almost nil.

Logistical issues caused our equipment, 18,000 pounds of surgical gear (639/640 AMMAL), to be held up in Bahrain until priority allowed it to be flown in. Nine thousand pounds of Shock Trauma Platoon (STP) gear (631/632 AMMAL) with personnel remained in Pasni, Pakistan. This is no fault of the Task Force commanders who needed to ensure adequate supply of ammunition, water, and runway repair equipment before medical gear could be brought in.

Were we too heavy? Yes! Too big? Yes! Movable but not mobile? Yes! Therefore, there were well-trained medical personnel located at Rhino with no means of providing the care they came to give for approximately 4 days. This nearly became a significant issue as our equipment and supplies did not arrive until the evening of 3 December.

It was rapidly assembled into a casualty treatment area and surgical suite over the next 24 hours just in time for the notification at 0900 on 5 December of the errant B-52 Joint Direct Attack Munition (JDAM) bomb dropped just north of Kandahar. We were to expect casualties.

In addition, it was noted that having only one surgeon and one anesthesiologist could prove to be a problem, especially given the additional personnel who could potentially need care—the Australian and British special forces teams as well as Hamid Karzai's team of Afghani opposition fighters. A request was then placed to bring in the augmentation surgeon and anesthesiologist from *Baatan*.

Another roadblock was the cap on the number of personnel at Rhino. It was initially 1,000 but was then increased to 1,400. In order to get these additional two professionals, two personnel already at Rhino had to return to *Peleliu* as an exchange. Of course

this was done as it was the right thing to do.

As the Marines found nothing insurmountable, neither did their Navy medical team. Initial resuscitative and operative capability was acquired from extra equipment on the ships until the STP arrived from Pakistan and the OR from Bahrain. In total, there were three casualty incidents, all of which were handled with the utmost professionalism. The first incident brought 40 casualties from the aberrant JDAM bomb drop. The Joint Medical Augmentation Unit (JMAU) and USAF teams arrived at Rhino to take any American casualties they could handle directly to the Level III facility set up by the USAF in Seeb, Oman. This left 20 Afghani patients and 2 Americans at Rhino. The casualty results for both Rhino and Seeb included: nine upper extremity fractures, four lower extremity fractures, three pneumothoraces, two extremity vascular injuries, nine tympanic membrane ruptures, two burns, and multiple shrapnel injuries to torso and extremities. The second incident

brought four casualties from a UH-1 crash whose injuries consisted of minor scrapes and bruises as well as two corneal abrasions. The third brought three casualties from an antipersonnel mine event in Kandahar. The Marine who stepped on the mine was flown directly from the Rhino airfield to Seeb, Oman with a certain below knee amputation. One Marine suffered a tympanic membrane rupture and the other a dorsal hand injury that was explored and debrided at Rhino. The data is somewhat limited due to inadequate recording of patient injuries.

Marine Corps Combat Development Center (MCCDC) has moved forward to support EMW and Ship to Objective Maneuvers (STOM) by devising a trauma surgical system, which has become known as the FRSS (Forward Resuscitative Surgical System). This system is a highly mobile unit created by MCCDC and procured by Marine Corps Systems Command (MARCORSYSCOM). First Medical Battalion personnel have been employed for the testing of the



Rhino Shock Trauma Platoon at work after the JDAM bomb drop.



Rhino surgical team operating on Marine mine casualty.

prototype system. The FRSS utilizes eight personnel, weighs less than 4,000 pounds, can be carried on two 63-L USAF pallets or by one -997 and one -998 HMMVEE with two M-101 trailers for ground transport, and can be set up and ready to take surgical casualties in 40-60 minutes by a properly trained team. It can also be struck and ready to relocate in 40-60 minutes. The system is set up to take care of 18 casualties without resupply and can sustain continuous operations for 48 hours without relief of personnel. The FRSS was nearing Milestone 3 and so the prototype system was unable to be used for the Rhino mission. Incidentally, this prototype FRSS was deployed and set up at Exercise Brightstar in Egypt (October 2001) as part of its Field Warfighter's Evaluation (FWE). However, because of the events of 11 September, it was made fully functional after the air strikes on Afghanistan began 4 October 2001. Thankfully, it was not needed. Since then, the system has been tested for an urban combat environment as it successfully participated in the Urban Combined Arms Exercise (UCAX) in Victorville, CA (August 2002), where

the system was set up in buildings of opportunity and relocated several times. In addition, it has been set up in Nuclear/Biological/Chemical shelters currently being tested by the Marine Corps.

Needless to say, in future USMC operations, whether small or large, the current complement of equipment and consumables will not suffice. This equipment needs to be in the inventory for the medical battalion surgical companies which can set up as relatively fixed facilities. However, there needs to be readily deployable, highly mobile, highly trained units of personnel and equipment which can go forward (as is safe) and support the Marines the way they are fighting today. The system deployed to Rhino would have never been able to move easily. Currently, the STPs are being updated and will function well as stand-alone facilities or with the FRSS. The FRSS needs final approval and multiple units need to be manufactured for each medical battalion for use in upcoming operations.

Enroute care has not yet been mentioned. However, its importance cannot be overstated. The Rhino medical

team lost personnel each time a medevac was necessary. These personnel were not returned to camp for several days after each mission. Eventually, the USAF AELT (Aeromedical Evacuation and Liaison Team) and MASF (Mobile Aeromedical Staging Facility) were brought in and took over the medevac and enroute care mission. Navy medicine in support of the Marines needs an enroute care package. Currently, this is also being undertaken by MCCDC and MARCORSYSCOM and a Subject Matter Expert Panel has already met to begin finalizing this package now known as the ERCS (Enroute Care System). This however needs to be functioning prior to the next undertaking by the Marines.

In conclusion, many would say that the problems encountered and the after action points made herein are very similar to those brought out after the Gulf War. Nonetheless, as is apparent, these areas are being worked on and refined so as to produce a functioning Navy medicine team to keep up with the every changing Marine war fighter. In addition, wartime is an excellent opportunity to gather data and learn from it. Many medical advances stem from lessons learned in the harsh conditions of war. A universal database for all services should be created especially when most patients will be cared for in a tri-service manner. Ideally, this would be in the form of a military trauma registry similar to the current civilian trauma registry used here in the U.S. The momentum to improve current systems and conditions is stronger than ever. Let's not lose focus during these "down periods." Let's continue to move forward. □

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# Navy Medicine's Connection to the Ghost of the *Hindenburg*

LCDR Gregory R. Cadle, MSC, USN

**S**hipmates! This year marks the 65th anniversary of the flames that consumed the German airship *Hindenburg*. Additionally, and just as importantly, it also marks the anniversary of the heroism displayed by the doctors, nurses, and corpsmen who were stationed at Naval Dispensary Lakehurst during this tragic event in our nation's history.

Although much has changed since the *Hindenburg* disaster, especially the manner in which Navy medicine providers deliver medical care, one thing has not; Navy medicine's tradition of providing superior medical support. Unfortunately, little is known about how the caregivers triaged the sick, wounded, and dead. However, we do know the dispensary was immediately utilized following the events of the *Hindenburg* crash. In fact, the dispensary is so well recognized that it has been placed on the State of New Jersey's registry of historical sites, and generates stories of "apparitions" within the host community each year around Halloween.

May 6, 1937, was an afternoon of unsettled weather, with a spring cold front blowing in off the Atlantic Coast and into Naval Air Station (NAS), Lakehurst, NJ. The base commanding officer at the time was LCDR C. E. Rosendahl, who eventually rose to the grade of vice admiral, and was a renowned proponent of airship innovation. Above NAS Lakehurst, floated Germany's *Hindenburg* (LZ-129), the Titanic of airships. It was waiting out the gusty winds and rainy conditions, while giving its passengers a few more hours of sightseeing after two boring days of staring down at the North Atlantic. Little did the airship's captain, Max Pruss, know, that in just a few short hours, 36 passengers/crew would be dead. Who can forget those emotional words spoken by radio announcer Herb Morrison: "*It burst into flames! It's fire and it's crashing! It's crashing terrible! Oh, my! Get out of the way, please! It's burning, bursting into flames and is falling on the mooring mast, and all the folks agree that this is terrible.*"

*This is the worst of the worst catastrophes in the world! There's smoke, and there's flames, now, and the frame is crashing to the ground, not quite to the mooring mast. Oh, the humanity, and all the passengers screaming around here!"*

Since then, Naval Air Engineering Station (NAES) Lakehurst, as it is now known, has been synonymous with disaster. Of those 36 who perished 22 were crew-members, 13 were passengers, and 1 was a ground crewman.

Navy medicine's connection to this great airship disaster was through Naval Dispensary Lakehurst, now known as Branch Medical Clinic Lakehurst. LT Carl Victor Green, Jr., the NAS base physician, along with his son Robert, were among those waiting on the *Hindenburg*, which was running late. Dr. Robert Green, who is still alive and practicing medicine in California, said in a recent published article, "It was evening, but quite light. The nose of the silver ship was pointed toward the town of

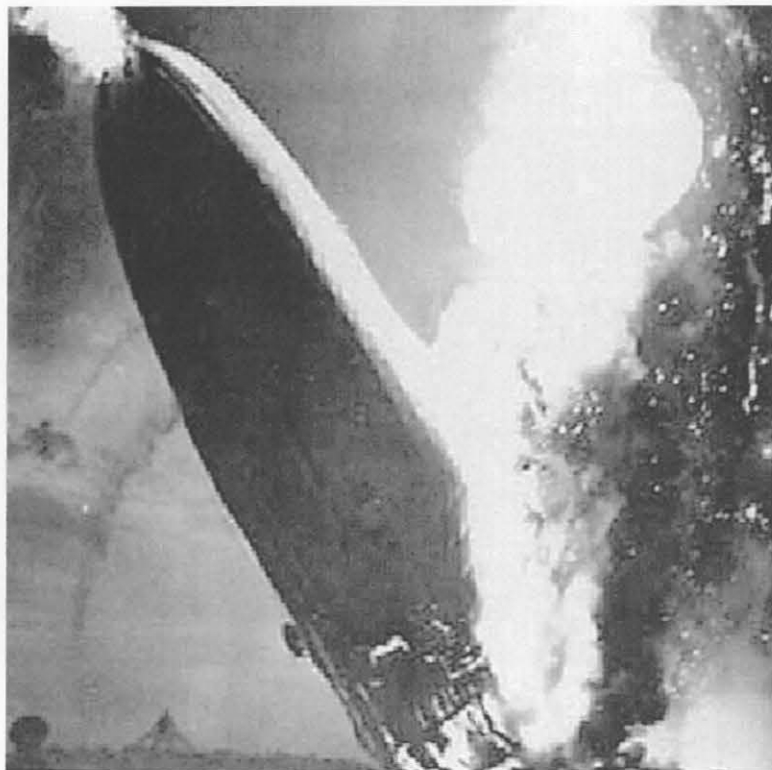


Photo from [www.unimuseum.org](http://www.unimuseum.org)

Lakehurst. She was poised for her pulling down and landing tower docking." Suddenly, there were three rapid explosions. "The rear half of the vessel was totally enveloped in bright orange flame," he said. "A blast of heat blew over us, standing a half-mile away." Within seconds Green continues, "a blow torch-like flame shot out of the nose." Green knew that the two men stationed at the front to affix the nose to the mast were gone as the mighty *Hindenburg* fell to the ground, burned, and became ash.

In the same article, Green recalled Navy medicine's contribution to this historic day. Green reported. "I hurried to the base hospital. I watched people walking in, carried into the hospital or ambulance garage, which had become a temporary morgue." Fortunately, only one man from the ground crew died at the hospital, Allen O. Hagaman, 51, of Lakehurst. He died from burns shortly after arriving on-board. The hull of the ship fell on him after he tripped and fell on the railroad tracks used to stabilize the airship after mooring.

The morning after the disaster, smoke was still curling from the mangled skeleton of what had once been the world's largest flying vessel. Surviving eyewitnesses could not forget the horrible smell of burning flesh that lingered in the air. There were still a few bodies unidentified or unaccounted for. In a section of the crew's quarters in the hangar, which had hastily been transformed into a morgue, a small group of men and women filed past the charred remains of 26 of the victims in an attempt to identify them. Other detachments of Sailors guarded all approaches to the wreck of the airship and all information was refused.

Today's clinic, once a full-service naval hospital, was built in 1921 when

the base first opened as an airship station under the direction of CAPT F. T. Evens, USN.

If you talk to the officers and corpsmen stationed at the clinic today, they will all tell you that it is a great duty station for enjoying the Jersey shore and cities like Philadelphia, New York, and Atlantic City, but occasionally strange things happen at the clinic that can't be explained. For example, corpsmen have heard unexplained footsteps, doors rattling, loud crashes, and lights flashing on and off. Recently, a staff member reported hearing footsteps and the rattling of their office doorknob, when working late one evening. He said, "I was sitting in my office writing a report when I heard footsteps in the hallway and someone or 'something' attempting to open my office door. When I got up and opened the door, just a few seconds later, I saw nothing and the hallway leading to my office was dark and empty."

Fact of the matter is, that this is not the first such report. In an article entitled, "*Lakehurst Apparition Still Scary*," a former staff member said he was standing watch when he heard a loud crash in the clinic area. When he went to look, he said he saw a large pamphlet rack had been tipped over and pamphlets were scattered all over the floor. He stated, "I was irritated at that, so I yelled I didn't make the mess. I'm not cleaning it up, you are," he said. The next morning the pamphlets were all back in their place.

If you talk to the employees of NAES Lakehurst, a majority of them believe that the souls of those who died with the airship remain to haunt the site and its surrounding buildings; however, this has never been proven. Nor has the story about the naval officer who walks the grounds of the historic hangar deck where the

*Hindenburg* was housed during its initial visit. Or the stories of the silver-haired woman in a white gown who visits the clinic area at night, or the airman dressed in vintage fly-gear who is said to have greeted workers in the hangar area with "Good Morning!" Some evenings, if you listen closely, you can hear muffled voices of men shouting "Away the lines, away the lines!" and "She's afire!" coming from the tarmac near the hangar.

Whether you believe in ghosts or just like a good history story, the doctors, nurses, and corpsmen stationed at Naval Dispensary Lakehurst on that drizzly and windy day in May of 1937 answered their call to duty. The heroism they displayed solidified forever Navy medicine's place in history along with those immortal words heard around the world as the *Hindenburg* crashed to the ground, "*Oh, the humanity!*"

To learn more about the *Hindenburg* disaster go to The Lakehurst Historical Society at [www.nlhs.com](http://www.nlhs.com) or Airships-The Flying Giants at [www.sabinerin.de](http://www.sabinerin.de).

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# Room At The Top

CAPT Joan Bold, NC, USN (Ret.)  
CAPT Adriane de Savorgnani, NC, USN  
CAPT Joanie Huber, NC, USN (Ret.)  
RDML Nancy Lescavage, NC, USN  
CAPT Cindy Perry, NC, USN (Ret.)

**T**he responsibility of command and how one prepares to assume the role of commanding officer (CO) are timeless concerns. The Shea-Arentzen Symposium held in April 1999 featured a special panel that specifically addressed these issues within the theme of customer service through career management. The conclusions and recommendations from that session are still valid today and well worth repeating.

Many officers may not aspire to follow the executive medicine path to CO because of the perception that it is impossible to attain the same level of job satisfaction in the administrative field that one may have had in the clinical. This is not true. One can find immeasurable job satisfaction in the role of CO, especially in the mentoring of junior officers.

## Ask Yourself

If you think you may be interested in pursuing this career path, ask yourself some tough questions. How you answer them can help you know if you would likely be successful.

There is much truth in the old saying, "luck is where opportunity meets preparation." Nothing can prepare you better than hard work, determination, experience, and an innate ability to lead.

Are you a free thinker? Are you willing to take risks? Are you innovative? Have you worked with people

from other services? Are you well-rounded? Are you interested in world affairs, sports, politics? Are you passive? Are you jealous? Are you passionate about your work? Are you a member of a professional organization? Did you go to a reputable graduate school? Have you been operational? Do you know your command's mission? Do you know the line's mission? Do you know and associate with people outside your profession? Do you associate with people on base? The line? The civilian community? Who is your responsible line commander? Who is his/her boss? Do you learn from your difficulties? What are your spiritual, professional, personal goals—1 year out, 3 years out? Do you know the goals of your people? What do you contribute to your community? Have you ever given a speech? Have you ever been published? What's the latest book you've read? What is your favorite book? Who is the Chairman of the Defense Appropriations Committee? What is his/her political party affiliation? How is legislation passed? Who is the Chairman of the Joint Chiefs of Staff? Where is Afghanistan? Kosovo? Kashmir? Are you business-minded? Do you try to control results instead of influencing thinking? Do you refuse to accept personal accountability? Do you manage everyone the same way? Are you a buddy, not a boss? Do you fail to set standards? Do you fail to

develop people? Do you condone incompetence? Do you recognize the positive qualities found in each person?

A good employee isn't necessarily the one who works hard; he/she is the one who adds value and gets results. Processes need to be managed; budgets need to be managed; priorities need to be managed, but people need to be led.

## Training

There are several professional development courses available to help prepare you for CO: the Executive Management Education series offered by the Naval Postgraduate School at Monterey, the Triservice Executive Management course at Fort Sam Houston, and the Navy Leadership Continuum. It is important for both junior and more senior officers to attend intermediate and advanced officer leadership courses. Command leadership and shore station management courses are also available.

Because of the frequency of legal issues in a command, the Navy's Senior Officer Legal Course is probably the most important. The legal discipline has an impact on every aspect of healthcare delivery. The complexity and rapidly changing nature of today's healthcare requires much legal involvement. The areas of bio-ethics, patient advocacy, risk manage-



ment, contract management, labor law, environmental law, hazardous materials management, and OSHA regulations are just a few that have extensive legal ramifications. The CO needs to be aware of accrediting standards, state and federal healthcare regulations, and federal management regulations. You need to understand the Uniform Code of Military Justice (UCMJ) about courts martial, captain's mast, and should participate in military court functions and administrative separation boards.

There are also a variety of other courses available like TQL educational programs. It is important to learn about total quality, process improvement, and strategic planning. These are all courses offered by the Navy Medicine Center for Organizational Development (MNCOD).

### **Personal Development**

Beyond the formality, there is the personal side of being a CO. Your time is not longer your own. The CO does not make his/her own schedule; your staff makes it. They hand it to you in the morning and say, "Captain, this is what you're doing today."

Professional communities are a study in the range of personality. It is important to recognize and appreciate the differences. Take any opportunity to work with other healthcare professionals on a variety of issues to become more conversant with each other's problem-solving styles and professional socialization.

The route to command is a journey not a guided tour. The following guidelines can help prepare you. In dealing with your fears "run towards the roar." As John Wayne said, "Courage is being scared to death and saddling up anyway." Even though you cannot know how you're going to do, and are afraid of failure, you saddle up any-

way and do your very best. Learn to overcome your fears and be willing to take risks.

"Don't just communicate, connect." An important component in any leadership job is to be able to connect—to establish relationships. Listening is important to connecting.

Make change your constant companion and ally. Recognize that the healthcare environment is constantly changing. Learn to see change as an opportunity to learn new skills.

Gain power by giving it away. Mentor others to eventually take on the role.

Practice strategic humility. As one assumes increasing responsibility there will be more and more you don't know. So it becomes increasingly important to recognize what you don't know, admit it, and ask for help.

Put your time where it counts. The pareto principle says that we spend 20 percent of our time doing the really important things and 80 percent doing the urgent but not important things. Try to spend a larger portion of time doing the right thing, putting your time where it really counts.

Throw anger away. The farther up the leadership chain you rise, the more you must confront circumstances beyond your control. A CO's decisions will not please everybody, and there will be anger. It is important to confront this emotion directly, but then put it aside, and move on.

Do the right thing. Leaders are role models and must possess integrity. People notice how the rules are applied. Are they applied equitably for all, including the leadership?

Give more than you receive. Develop others by giving of your time. This is one of the most important guidelines for a CO.

Never, never give up. Take risks and do things outside your comfort

zone. Recognize there will be successes as well as failures, but failures are also opportunities.

Do you feel qualified as a leader? Several powerful concepts set great leaders apart from average leaders. Leadership begins with a vision. One must create and communicate the organization's vision for leadership. One must possess an in-depth understanding of the organizational structure, culture, and the business of healthcare. Thinking long term is as imperative as is "rising above the fray" to get the helicopter view of reality. Leaders should insist on excellence and be passionate about their work! Leaders share their vision and communicate a sense of urgency to the staff by articulating marketplace needs and pressures. They anticipate upcoming challenges and assess their organization's ability to deal with them.

Trusted teamwork is bedrock to success, but one cannot do this alone. Leaders must surround themselves with powerful coalitions that believe in the leader's assessment of the realities, in the vision for the future, and in the strategies and time frame layout. Vision can only become reality through staff empowerment and leaders' willingness to remove obstacles that get in the way. As lines between leaders and managers blur, leaders must develop partnerships and political skills to cope with the conflicting requirements of multiple constituencies. Leaders are mentors, coaches, and good listeners. Leaders must be able to shift from conventional management to becoming transformational leaders. They create an internal environment that reflects an understanding of what is right. They encourage staff to ask questions, challenge the status quo, and recognize and embrace the importance of diver-

sity and the advantages of differences that exist in culture, gender, background, and experience. Success for a leader comes when subordinates are not afraid to admit error, not afraid to ask for help, and feel supported by the chain of command. Leaders provide a pathway for subordinate development, remove barriers to growth, and reward success. Sometimes, a sense of humor, warm handshake, or a friendly greeting matter more than you think. Leaders provide an environment of caring in which everyone benefits, not just the patients but the community and everyone on the team.

Leadership is not about one style, one successful project, one particular job, or the level of education you may have attained. Great leadership is about all these things and much more. Great leaders know about their organization and their staff. They consider the facts, weigh the data, and base decisions upon them.

They align their personal goals with organizational goals. Great leaders are constantly learning and stay engaged by developing a personal philosophy about leadership. Becoming a CO demands leadership skills, first and foremost.

COs must strive to establish a viable position in the world of managed healthcare while maintaining command readiness. They must also continue to adapt to technological advances and the community's changing needs. Ideally, COs positively influence staff members to pursue common goals and ensure they are trained effectively. Likewise, they must re-

ward progress toward these goals and empower subordinates to use their own energy and experiences in pursuing them.

As senior healthcare executives, COs are ultimately responsible not only for the economic health of their organization but also for the level of professional care and services. It goes without saying that they must ensure good order, discipline, and the safety and well-being of the entire command.

### **Learning to be a CO**

How does one learn to be a CO? Preparation takes place during your military leadership training and multiple work experiences in the Navy. Team building skills and understanding of administrative functions are developed throughout these experiences. The advent of managed care in the military (TRICARE) has taught us the importance of sound business practices and information systems, and the critical need to be accountable for our resources. In the face of new opportunities, our Navy core values of honor, courage, and commitment reinforce leadership behavior—being able to take prudent risks for the larger good or benefit of the organization and persevering through tough times.

Along the way we also learn the value and necessity of balance in our lives—work, home, and play, and the need for positive health habits, spiritual health, and diversions.

Past precepts to CO/XO screening boards help clarify criteria for selecting candidates for CO.

- Military education and preparation for command responsibility.
- Operational assignment.
- Managed care experience.
- Understanding the impact of administrative functions.
- Physical readiness standards.
- Educational background (Master's degree and certification).

### **Preparing Yourself for a CO Tour?**

**Performance:** the need for a variety of work experiences demonstrating flexibility and increasing levels of responsibility and independence in terms of assignment. Overseas duty, including operational if possible.

**Career-enhancing activities:** active involvement in special events and projects, committee work, professional research and publications, membership/service in professional organizations, and volunteer activities show flexibility and help develop skills.

**Upward mobility in professional specialty:** Higher education and national certification show commitment to your specialty via leadership continuum courses, executive medicine courses, operational training and in/out service courses. □

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# Ten Questions Patients Ask Their Dentists

**D**uring a regular dental check-up, your dentist and hygienist routinely ask questions about your dental health. The visit is also a perfect time for you to ask questions about your dental care needs. CDR Kim E. Diefenderfer, DC, USN, the Navy Specialty Leader for Preventive Dentistry and a researcher at the Naval Dental Research Institute in Great Lakes, IL, has noted questions patients often asked and he came up with answers to the most common ones. CDR Diefenderfer shared his Qs&As with military and civilian dentists during a recent continuing education seminar at Naval Dental Center Southwest in San Diego.

## **1. HOW OFTEN SHOULD I HAVE MY TEETH CLEANED?**

Most people like to have their teeth cleaned once or twice a year. Research shows that regular professional cleaning may reduce the risk of dental caries (cavities) and periodontal (gum) diseases. Some dental conditions require more frequent monitoring and intervention; some require less. Discuss your personal dental health needs with your dentist.

## **2. WHAT TYPE OF DENTAL FLOSS SHOULD I USE - WAXED OR UNWAXED?**

Research comparing waxed and unwaxed floss shows it doesn't matter which is used. It's not the floss; it's proper flossing techniques that makes the difference in dental health. We have a tendency to floss on the backside of a tooth better than the front side; we floss the front teeth better than the back, and we are better at flossing near the chewing surface of the tooth than at the gum line. So, use either waxed or unwaxed floss, but be meticulous, practice technique, and floss at least once a day. Proper flossing removes plaque and food particles from areas not reached by a toothbrush.

## **3. HOW OFTEN SHOULD I BRUSH MY TEETH? WHAT KIND OF TOOTHBRUSH SHOULD I USE?**

Regular brushing is vital to maintaining optimal oral health. Dentists recommend brushing with fluoride toothpaste after every meal and before bedtime because carbohydrates in food and drinks feed oral bacteria and produce acids that can lead to cavities. One caution for patients who eat several small meals daily rather than the traditional three meals. Brushing more than five or six times a day may increase the risk of damage to the tooth enamel.

With so many shapes, sizes, and styles of toothbrushes on the market, choosing the right one can be confusing. Be sure to use a toothbrush with round, soft nylon bristles; toothbrushes with medium to hard bristles can be abrasive to the tooth enamel. Research suggests that no particular configuration of bristles is better than another for removing plaque and food particles. So, go ahead and clip the store coupon and get the best buy on your favorite style and color.



#### **4. ARE ELECTRIC TOOTHBRUSHES BETTER THAN MANUAL BRUSHES?**

Manual and power toothbrushes are effective, but studies show electric and sonic toothbrushes, if used properly, can perform better than manual toothbrushes. The key is to use the toothbrush that best meets your needs. For example, people with arthritis or limited dexterity may find an electric toothbrush especially helpful. People with orthodontic braces may find it easier to brush effectively with an electric toothbrush. Since the rotating head of a powered toothbrush requires less force and manipulation than a manual toothbrush, the risk of dislodging orthodontic appliances might be reduced.

#### **5. WHAT IS A GOOD TOOTHPASTE? DO I NEED FLUORIDE, BAKING SODA, WHITENERS, AND FLAVORS?**

A good toothpaste has the American Dental Association (ADA) Seal of Acceptance. This seal means the manufacturer provided scientific evidence that the product does what it claims to do. The ADA recognizes five categories of toothpastes: “anti-cavity,” “anti-cavity & tartar control,” “anti-cavity & desensitizing,” “anti-cavity, anti-plaque/anti-gingivitis, & tartar control,” and “whitening.” Toothpaste formulations and chemistry are very complex, and each manufacturer has its own variations, but the primary ingredients remain the same. A very important ingredient is fluoride to prevent dental caries. Over 95 percent of toothpastes sold in the U.S. contain an ADA-accepted fluoride formulation. So, in addition to the name brands, most store brands are effective anti-cavity products. In spite of its gritty texture, baking soda is actually an extremely mild abrasive—very kind to tooth structure—that also exhibits some antibacterial properties. Toothpastes that advertise improved stain removal (“smokers’ toothpastes,” etc.) usually contain harsher abrasives and if overused can damage the tooth enamel. Flavoring agents are important for marketing. People want a product with a pleasant flavor. Whitening toothpastes, a category that received ADA acceptance only within the past 2 years, work by removing surface stains. The “whitening” agents are special abrasives, detergents, or enzymes. Currently, only six products have received the ADA Seal as whitening toothpastes. Each contains fluoride as an anti-cavity agent, and five are accepted for tartar control. As for the whitening properties, there hasn’t been much independent research published yet. These products are safe; however they will not change the overall color of teeth and they don’t claim to deliver the “Hollywood smile.” These products should not be confused with bleaching agents (usually peroxide compounds) that work by breaking down pigment to remove color from teeth.

#### **6. DO BLEACHING PRODUCTS REALLY WORK?**

Yes, but consult your dentist first, because the procedure isn’t always as simple as many people believe. Tooth color is influenced by many factors, including previous trauma to the teeth, exposure to certain medications, drinking tea or coffee, smoking, and the natural aging process. Not all teeth respond equally well to bleaching. In general, bleaching is more successful on lighter (yellow) colorations than darker (gray/brown); and bleaching will not lighten existing dental restorations, such as tooth-colored fillings, bonding, crowns, or bridges. Before bleaching, it is important to consider how much of your existing dental work will have to be replaced to achieve the desired results. Your dentist can determine if you are a good candidate for bleaching.

#### **7. I LIVE ON BASE, IS THERE FLUORIDE IN THE WATER?**

DOD does not mandate fluoridation of base water supplies, and military bases in the United States are dependent on the local community’s water supply. If you want to know the local fluoride content, contact the Public Works Department or the local municipal water commission. They can tell you the required fluoridation level and provide details on the high, low, and average levels for the year, the month, and the day. Depending on the geographic area, the level of naturally occurring fluoride in the water supply can range from 0 to >5 parts per million (ppm). The ADA recommends one part per million. Keep in mind that not all communities have fluoridated water or adjust their water to optimal fluoride levels. Well water, in particular, can be quite variable even within the same geographic location.

## 8. DOES BOTTLED WATER CONTAIN FLUORIDE?

There is concern that drinking bottled water instead of fluoridated tap water may result in insufficient fluoride exposure, which could increase the risk of dental caries. The fluoride content in bottled water and beverages (everything from soft drinks to fruit juices) can vary from <0.01 ppm to 4-5 ppm, and will mirror the level of fluoride in the water at the place of manufacture. So, if a diet soda is bottled in suburban Washington, DC, or any other optimally fluoridated community, it probably contains about 1 ppm of fluoride. Currently, the FDA limits the fluoride content of bottled waters to 2.4 ppm (if no fluoride is added during manufacture) and 1.4 ppm (if the manufacturer adds fluoride). However, since the FDA has not defined a nutrient content claim for fluoride, bottled water manufacturers are not required to list fluoride content on the label. Remember, we get fluoride from many sources, including foods and beverages, professional fluoride applications during dental visits, and, most importantly, toothpaste and drinking water.

## 9. DOES MY HOME WATER FILTER REMOVE FLUORIDE FROM THE WATER?

This tends to be brand-specific; however, studies have shown that the more heavy duty the filter, the more likely fluoride could be filtered out. One study compared five filters in cities with low fluoride, optimal fluoride, or naturally fluoridated water. There was no noticeable change in water fluoride levels. Another study showed that a water softener and water conditioner did not alter the fluoride content, but the water filter studied reduced fluoride content by 90 percent. The small activated charcoal filters that screw to the faucet probably don't remove fluoride, but, without testing, this isn't certain.

## 10. MY FIFTEEN YEAR-OLD SON WANTS TO PIERCE HIS TONGUE. SHOULD I BE CONCERNED?

Your son needs to be aware of several risks associated with oral piercing. First, the tongue is highly vascular and bleeds when cut, so there is a risk of hemorrhage. There is also a risk of nerve damage, swelling, localized infection, and systemic infection (tetanus, hepatitis, HIV), particularly if the piercing establishment doesn't follow strict infection control procedures. After the piercing, he must be committed to removing and cleaning the appliance at least once a day to prevent bad breath, swelling, and infection from an overgrowth of bacteria and fungi. He must also realize that when the appliance is removed, the opening will start to heal and close in a matter of hours, so the appliance may be difficult to reinsert. Most importantly, he must be aware of the substantial risks of cracked and broken teeth, gingival (gums) recession, impaired speech, and the possibility that he could swallow or aspirate the appliance. If all this fails to discourage him, remind him that the piercing will probably be done without anesthesia.

*CDR Diefenderfer is Head of the Applied Clinical Sciences Department at the Naval Dental Research Institute (NDRI). His research team is working to develop new restorative dental materials, as well as studying the epidemiology, diagnosis, treatment, and prevention of dental diseases that affect the health, performance, and readiness of Sailors and Marines. For over 50 years, NDRI researchers have investigated problems related to oral health, disease, and injury and developed techniques and products to improve dental and medical care in the Navy. With the co-location of the Army Dental Research Detachment in 1996 and the U.S. Air Force Dental Investigation Service in 2000, Great Lakes became the site for all DOD dental research.* □

—Story by Doris M. Ryan, Medical Research and Development Division (M2), Bureau of Medicine and Surgery, Washington, DC.

## Forum

The following essay was the winner of the Surgeon General's Navy Medicine Essay Contest.

# Navy Medicine's Focus is on the Future

LCDR Robert S. Fry, MSC, USN

Several years ago at the Bureau of Medicine and Surgery (BUMED), an email was sent to all flag officers, deputy chiefs, and executive assistants assigned to Headquarters. It was unlike any of the others sent to the leadership of Navy medicine at that time. There was no text in the body and only one word in the subject line. That word was viewed by some recipients as prodigious guidance and by others as comic relief.

As the author of that infamous email, I would like to believe it was viewed as the former, especially since it was sent in error. For obvious reasons, I hoped everyone had forgotten it by now, although, a shipmate continues to remind me of my blunder. Through the years, I have received a copy of the email, a greeting card with the word printed on it, and recently, a movie with the word as the title. What word could have so much meaning and impact that it is printed on greeting cards and used as a movie title? *The American College Dictionary* provides one definition of the word as a, "clear and sharply defined condition of an image."<sup>(1)</sup>

That is what I would like to share with you, a clear and sharply defined condition of an image—an image of Navy medicine. I would like to do it

through an acronym of this word, a word that has had greater impact on the future of Navy medicine than many may realize. Four years ago, the word in the email was focus. Today, the implication of that word remains the same. It is *FOCUS*, which captures Navy medicine's current strategic plan.

**F** – Force Health Protection is our mission.

**O** – Our business focus is Readiness–Optimization–Integration (ROI).

**C** – Core Values–Honor, Courage, Commitment—are the bedrock of Navy medicine.

**U** – You! Understand our vision to make us provider of choice by achieving superior performance.

**S** – Success is judged by our patients and customers.

The new *FOCUS* of Navy medicine is additionally stated in the strategies of Readiness, Health Benefit, Best Business Practices, and People.<sup>(2)</sup> Strategies include a plurality of inputs, a multiplicity of options, and an ability to accommodate more than one possible outcome.<sup>(3)</sup> As members of the Navy healthcare team, we need to provide input and recommendations that can lead to various outcomes for the military health system. As we review each

strategy, this paper will explore one possible outcome for the "long view" of Navy medicine. It also suggests that the timing may be right for a major realignment for the Military Health System (MHS).

## *FOCUS* on Readiness

The Readiness strategy, in part, is synonymous with the mission of Force Health Protection (FHP). FHP is described in the plan as a "strategy that maintains readiness by promoting a system of comprehensive quality health services that ensures our people are fit and healthy; that they are protected from hazards during deployment; and that when illness or injury intervenes, they are accorded state of the art casualty care."<sup>(4)</sup> In the past 10 years, there have been numerous lessons learned in regard to FHP, specifically the need for improved communication, improved health surveillance, improved medical record keeping, increased support of biomedical research, and increased interagency coordination.<sup>(5)</sup> These lessons have been drivers for change in the Military Health System and created new opportunities for interagency coordination and collaboration. In May of 2001, under executive order, the President's Task Force to Improve Health Care Delivery for



Our Nation's Veterans was formed to identify ways to improve benefits and services for beneficiaries; review barriers and challenges that impede coordination; and identify opportunities for improved resource utilization through partnership between the Department of Veterans Affairs (VA) and the Department of Defense (DOD).(6) In Congressional testimony, 10 April 2002, the Assistant Secretary of Defense for Health Affairs and the Executive Director of the TRICARE Management Activity, stated that eight joint ventures are in place between the VA and DOD, with 600 sharing agreements covering 7,000 healthcare services.(7) The task force may recommend the design of a new healthcare system that optimizes the two agencies to create a "seamless system of care" by fully integrating the 163 VA medical centers (VAMC) nationwide with the MHS military treatment facilities (MTF), which could enhance readiness and the health benefit missions.

### **FOCUS on Health Benefit**

Navy medicine's Readiness mission is complimented by the Health Benefit mission. The health benefit is being provided by using the MHS as the main delivery system, which is augmented by a civilian network of providers and facilities under our TRICARE program.(8) The goals of TRICARE are to improve medical readiness, improve access, maintain high quality, and contain costs.(9) The 2002 TRICARE Stakeholders' Report indicates a total of 8.4 million beneficiaries are eligible for the health benefit, with approximately 50 percent enrolled in TRICARE Prime. This benefit is provided through 76 military hospitals and 460 clinics with 131,000 MHS personnel and a total budget of \$24 billion.(10) Numerous

strides have been made to improve the health benefit through TRICARE and to demonstrate it is not merely an insurance plan. TRICARE is how the MHS fulfills its mission, in part. The mission of the MHS is to be responsive and accountable to DOD, line leadership, and our beneficiaries to ensure force health protection and optimize the health of MHS beneficiaries by providing best value health services using best clinical and business practices.(11)

### **FOCUS on Best Business Practices**

Best Business Practices are defined in the plan as those that have been shown to produce superior results evaluated as exemplary or successfully demonstrated, and modified to fit a particular organization. This strategy has identified two goals related to benchmarking and technology integration. The services have leveraged technology with the "webification" of Navy medicine and TRICARE online, to the Theater Medical Information Program (TMIP), which will provide the command surgeon a comprehensive view of the theater medical battlefield. The TMIP is anticipated to integrate various data systems, including CHCS II to TRACES II, which can be shared within the DOD and the VA. Some of the capabilities have been benchmarked from commercial off-the-shelf applications.(12)

It is suggested, partially in jest, that BUMED benchmark from itself in regards to reorganization and realignment since we have achieved it several times during the past 20 years. As this strategic plan is being implemented, the BUMED Chief of Staff announced that Headquarters is undergoing a realignment process. "This realignment is intended to increase the timeliness and responsiveness of

BUMED, improve organizational efficiency and effectiveness, and improve internal and external integration, collaboration, and communication. Along with realigning some codes at BUMED, Navy medicine is continuing to align with "Big Navy."(13) This headquarters realignment was directed, in part, by the Chief of Naval Operations' guidance for 2002 as we "Fight and Win" our war on terrorism.(14)

As a result of the war on terrorism, events have been initiated that have changed DOD and our country in ways we have yet to imagine. One such action occurred in April 2002, when President Bush signed a new Unified Command Plan to create a United States Northern Command (NORTHCOM) structure. NORTHCOM's area of operations will include the United States, Canada, Mexico, parts of the Caribbean, and up to 500 miles of the contiguous waters off the North American coastline. NORTHCOM will be the homeland defense command for the United States.(15)

Additionally, in June of 2002, the President announced a proposal for the largest federal government reorganization since the 1947 National Security Act. President Bush has proposed a cabinet level Department of Homeland Security, which would realign duties from nine federal departments with approximately 170,000 employees and an estimated \$37 billion dollar budget. The new agency, in terms of size, would be second only to the Department of Defense.(16)

As the "window of opportunity" for monumental government realignment opens, it is suggested that one envision the future of Navy medicine and the Military Health System with a different command structure and a different look. This proposal goes be-

yond the old "Purple Suit" concept of combining the service medical departments of the Army, Navy, and Air Force into one, but to also integrate the healthcare delivery and other appropriate functions from the VA, Coast Guard, and U.S. Public Health Service (USPHS) systems. The USPHS Commissioned Corps is one of seven uniformed services. It provides medical care for two of the other uniformed services, the Coast Guard and the National Oceanic and Atmospheric Administration.<sup>(17)</sup>

The details of the reorganization could be developed by individuals already working on the various issues. A review of the MHS website of committees, work groups and charters, indicate that currently there are 56 groups working on the myriad of MHS issues.<sup>(18)</sup> This list does not include the previously noted task forces, nor does it include service specific working groups. At this point, the "how to" is not as important as the recognition by top leadership that the timing is right to reorganize or realign our healthcare delivery system on a much larger scale. This paper is only intended to plant the seed of change, but I believe President Eisenhower said it best. "The right system does not guarantee success, but the wrong system guarantees failure. A defective system will suck the leadership into its cracks and fissures, wasting their time as they seek to manage dysfunction rather than making critical decisions."<sup>(19)</sup>

It is not suggested that our current system is inefficient or ineffective, only that as we look to maximize the ROI for the system, we need to look at our business practices in new ways. For those readers who are thinking we cannot do this, I would hope the previous examples would serve as a measure of possibility. So as the new cen-

tury and a new era of war have delivered new challenges and opportunities, we look toward the future with a joint vision of full spectrum population health services. This is a vision that can only be realized through our people.

### **FOCUS on People**

Those who read this essay, like the email, may view it as being written in error, but I write it as an outsider. For the last 3 years I have been a full-time out-service student. My only link to Navy medicine has been through retirement ceremonies, officer applicant interviews, commissioning ceremonies, and the occasional email. At retirement ceremonies of senior chiefs to rear admirals, I am as humbled by these leaders' contributions as I am by how much the Navy has changed during their tenure. I have conducted interviews for many applicants for the Navy Medical Department. I am reassured by the caliber and competence of our next generation of leaders ready to serve. One individual I commissioned graduated from Officer Indoctrination School the same day I was attending another retirement ceremony for one of our commanding officers. I have witnessed the replenishment of talented Sailors and leaders in our organization and they are ready for this challenge, a challenge some may feel unnecessary. They are reminded that those reading this essay today may be retired someday and looking toward the leadership to "Keep the Promise."

So, as the current leaders lay the foundations of change through best business practices and ROI, and erect the columns of readiness, people, and health benefit to build upon, I am confident the next generation of Sailors is ready to *FOCUS* on the future as we provide world-class healthcare!

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## Book Review

*Strong at the Broken Places* by Max Cleland with a foreword by John McCain. Longstreet Press, Marietta GA, 2000. 194 pages.

As practitioners of Navy medicine, we are in a position to influence lives on a daily basis. From hospital apprentice to the Navy Surgeon General, giving the men and women of our armed forces a second chance and a quality of life is what it's all about. Senator Max Cleland is a case in point. Dedicated Navy corpsmen, nurses, and doctors not only saved his life but also restored his spirit. His autobiography is a description of those men and women whose dedication led to his recovery from wounds sustained during the Siege of Khe Sanh.

The story begins with Cleland as an idealistic young Army captain gravely wounded by an accidental grenade blast in the haze of war. His injuries cost Cleland both his legs and right arm. The first to tend him was a Marine who administered buddy aid. A Navy corpsman, Steve Johnson, proceeded to stabilize the gaping wounds. Cleland was then evacuated to a field hospital in Vietnam, and from there he experienced a long, difficult, but determined road toward recovery.

Cleland's book will touch all those involved in military medicine and illustrate that healing is a combined effort between doctors, nurses, corpsmen, therapists,

and even patients. His journey was not always smooth going. Although he witnessed a medical staff numbed by the repetition of encountering constant trauma in Vietnam, Cleland mentions by name and deed those who contributed to his recovery.

The author-patient takes the reader through his entire experience from the moment of injury, through field hospitals, theater medical facilities, major military medical centers stateside, and finally to the Veterans Administration (VA) hospital where he ended up.

This author eventually used his experience to champion veterans' rights and propel himself through Georgia politics. When Jimmy Carter was elected President, he appointed Cleland to head the VA.

Cleland describes his election to the U.S. Senate and his subsequent efforts both to reform the VA and fight for increases in the GI Bill. Despite his busy Senate schedule, Cleland still takes time to visit combat medics as they train the next generation of battlefield lifesavers, those special medical personnel to whom he owes his life. □

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—LT Aboul-Enein is a graduate of the Joint Military Intelligence College and is temporarily assigned to the Pentagon as a Middle East Foreign Area Officer.



# INDEX

## Vol. 93, Nos. 1-6

## January-December 2002

### ABOUL-ENEIN, YH, LT, MSC

- Khat: exposé on the horn of Africa's drug of choice 1:16
- Maintaining the moral high ground: providing healthcare to Taliban and terrorist detainees 2:3
- Smallpox: implications and impact as a bioweapon 4:7
- Unconventional medical planning: Afghanistan operations as a blueprint for Navy medicine's future 6:9

#### book reviews

- Germes: Biological Weapons and America's Secret War* 2:39
- New Biological Weapons: Threat, Proliferation and Control* 3:28
- Nightmare on Iwo* 1:36
- Scourge: the Once and Future Threat of Smallpox* 2:38
- Strong at the Broken Places* 6:29

Allen, A, Naval medical center San Diego joint replacement innovation 4:3

Ansarov, S, JO1, Ray of light, a 1:26

Arbeene, R, LCDR, NC, Need for operational nursing, the 1:31

Astronaut visits Navy medicine 4:4

### BADURA, B,

- Astronaut visits navy medicine 4:4
- Space is the next port of call for Navy docs 3:10

Baird, JK, CDR, MSC, Re-emerging malaria on Java 5:1

Ballagh, T, Ms, Designing shipboard medical and dental facilities for the owners with the owners 5:30

Barron, BA, CDR, MC, Quick reference guide to dietary supplements, a 1:18

Beecham, HJ, III, CAPT, MC, Re-emerging malaria on Java 5:1

Benevolence survivor 1:27

Billings, BP, COL, SC National Guard, Feeling the sound can be dangerous to your health 1:22

Bold, J, CAPT, NC (Ret.), Room at the top 6:20

#### Book Reviews

- A History of Medicine in the Early U.S. Navy* 5:35
- Germes: Biological Weapons and America's Secret War* 2:39
- New Biological Weapons: Threat, Proliferation and Control* 3:28
- Nightmare on Iwo* 1:36
- Scourge: the Once and Future Threat of Smallpox* 2:38
- Strong at the Broken Places* 6:20
- The First, The Few, The Forgotten: Navy and Marine Corps Women in World War I* 4:28
- Two Moons* 5:34

Brannmann, BG, CAPT, MSC, New medical department flag selects 3:4

Brawley, R, CAPT, MC, Medical surveillance programs for homeland defense 3:14

Burkhard, TK, CAPT, MC, New medical department flag selects 3:5

CADLE, GR, LCDR, MSC, Navy medicine's connection to the ghost of the Hindenburg 6:18

Carey, N, Ph.D., Future deployable medical platforms for Navy medicine 4:24

Chaffee, J, NSA station hospital, Da Nang: a personal history 1:9

Chaffee, M, CDR, NC, Navy medicine steams ahead on homeland security 2:6

Chenevert, K, LT, MSC, Navy medicine steams ahead on homeland security 2:6

Chesbrough, K, MPH, Evaluating the long-term health impact of military service 5:5

Civilian scientists go to sea 3:1

Command at sea: the hospital ship controversy of 1908-1921 2:24

Consolidated medical check-in: putting prevention and readiness first 3:18

Constantine, DC, HMCS(AW/NAC), An MIA comes home 1:7

Corrao, GJ, HM2, Operation determined vigilance 4:18

Crosby, N, CDR, NC

Images from the "forgotten war" 2:17

Korea 50 years later 5:15

Culpepper, R, CDR, MC, DOD-global emerging infections surveillance and response system 5:10

Curnow, AH, HM3, Operation determined vigilance 4:18

DAVIS, C, HM1(FMF), Joint medical executive skills development program (JMESDP): congress and you 2:9

Dental triage CD for independent duty corpsmen 2:2

de Savorgnani, A, CAPT, NC, Room at the top 6:20

Designing shipboard medical and dental facilities for the owners with the owners 5:30

DOD-global emerging infections surveillance and response system 5:10

Dubin, M, Industrial hygienists clear the air after Pentagon terrorist attack 4:5

EHRESMANN, EC, CDR, MSC, Joint medical executive skills development program (JMESDP): congress and you 2:9

End of life care: a gift for our patients 2:14

Evaluating the long-term health impact of military service 5:5

FAISON, CF, III, CAPT, MC, Operation determined vigilance 4:18

Feeling the sound can be dangerous to your health 1:22

#### Forum

Future deployable medical platforms for Navy medicine 4:24

Navy medicine's focus is on the future 6:26

Need for operational nursing, the 1:31

Strategic biodefense: a call to reinvent the hospital ship 1:33

Strategic biodefense: a call to reinvent the hospital ship, reprint 2:31

Fry, RS, LCDR, MSC, Navy medicine's focus is on the future 6:26  
Future deployable medical platforms for Navy medicine 4:24

**GAY, JC, LCDR, NC, Consolidated medical check-in: putting prevention and readiness first 3:18**

Ginchereau, EH, CAPT, MC, Navy medicine in the forgotten war: Korea 1950-1953 Part IV 3:20

Grefer, J, Future deployable medical platforms for Navy medicine 4:24

Guantanamo Bay reflections: spiritual readiness and the new war 3:6

Gumbs, G, MPH, Evaluating the long-term health impact of military service 5:5

#### **HOOPER, C,**

Strategic biodefense: a call to reinvent the hospital ship 1:33

Strategic biodefense: a call to reinvent the hospital ship, reprint 2:31

Hores, JM,

Sailing with the USS *Harry S. Truman* (CVN-75) 1:3

Women's history month keynote speaker is RADM Bonnie Potter 3:25

Unconventional medical planning: Afghanistan operations as a blueprint for Navy medicine's future 6:9

Huber, J, CAPT, NC (Ret.), Room at the top 6:20

**IMAGES** from the "forgotten war" 2:17

Industrial hygienists clear the air after Pentagon terrorist attack 4:5

In memoriam

Lebherz, TB, CAPT, MC (Ret.) 2:37

St. Pierre, BRE, CAPT, NC (Ret.) 3:27

Van Landingham, EL, Jr., CAPT (Ret.) 2:36

Welham, W, RADM, MC (Ret.) 3:26

**JAMES, KC, CDR, CHC, Guantanamo Bay reflections: spiritual readiness and the new war 3:6**

Joint medical executive skills development program (JMESDP): congress and you 2:9

**KELLEY, P, COL, MC, USA, DOD-global emerging infections surveillance and response system 5:10**

Khat: exposé on the horn of Africa's drug of choice 1:16

King, K, CAPT (Ret.), Designing shipboard medical and dental facilities for the owners with the owners 5:30

Korean war vet donates artwork to NNMC 1:1

Korea

Benevolence survivor 1:27

Images from the "forgotten war" 2:17

Korea 50 years later 5:15

Korean war vet donates artwork to NNMC 1:1

Navy medicine in the forgotten war: Korea 1950-1953 Part IV 3:20

**LEBHERZ, TB, CAPT, MC (Ret.), in memoriam 2:37**

Lescavage, N, RDML, NC, Room at the top 6:20

Letter to the editor 2:40

Levine, RS, CDR, MC, Rescue at any depth: Navy DMOs support undersea habitat 3:8

**MAINTAINING** the moral high ground: providing healthcare to Taliban and terrorist detainees 2:3

McCartan, DP, LCDR, NC, End of life care: a gift for our patients 2:14

McNeil, R, CDR, MSC, Navy medicine steams ahead on homeland security 2:6

Medical surveillance programs for homeland defense 3:14

MIA comes home, an 1:7

Murphy, B, CDR, MSC, Medical surveillance programs for homeland defense 3:14

**NAVAL** medical center San Diego joint replacement innovation 4:3

Navy dental corps: 90 years marching forward 4:10

Navy medicine in the forgotten war: Korea 1950-1953 Part IV 3:20

Navy medicine seeks articles 3:24

Navy medicine steams ahead on homeland security 2:6

Navy medicine's connection to the ghost of the Hindenburg 6:18

Navy researcher tailors fitness program for aviation search and rescue swimmers 6:4

Need for operational nursing, the 1:31

New medical department flag selects 3:4

Newman, K, LT, MSC, Consolidated medical check-in: putting prevention and readiness first 3:18

Nicholson, BR, LT, MC, Quick reference guide to dietary supplements, a 1:18

Norman, D, CDR, NC, Need for operational nursing, the 1:31

NSA station hospital, Da Nang: a personal history 1:9

**OPERATION** determined vigilance 4:18

**PAVLIN J, MAJ, MC, USA, Medical surveillance programs for homeland defense 3:14**

Perry, C, CAPT NC (Ret.), Room at the top 6:20

Peters, RJ, CDR, DC, Navy Dental Corps: 90 years marching forward 4:10

Peters, AD, CAPT, DC, Navy Dental Corps: 90 years marching forward 4:10

**QUICK** reference guide to dietary supplements, a 1:18

**RADIOGRAPHY** correction 2:40

Ray of light, a 1:26

Re-emerging malaria on Java 5:1

Rescue at any depth: Navy DMOs support undersea habitat 3:8

Research and Development

Civilian scientists go to sea 3:1

Dental triage CD for independent duty corpsmen 2:2

DOD-global emerging infections surveillance and response system 5:10

Evaluating the long-term health impact of military service 5:5

Re-emerging malaria on Java 5:1

Solving a baffling mystery: getting closer to a dengue vaccine 3:2

You can't lie to DAVID about your measurements 4:1

Ross, SA, CAPT, NC (Ret.), Command at sea: the hospital ship controversy of 1908-1921 2:24

Ryan, M, CDR, MC, Evaluating the long-term health impact of military service 5:5

Ryan, DM

Civilian scientists go to sea 3:1

Dental triage CD for independent duty corpsmen 2:2

Solving a baffling mystery: getting closer to a dengue vaccine 3:2

You can't lie to DAVID about your measurements 4:1

Navy research tailors fitness program for aviation search and rescue swimmers 6:4

Ten questions patients ask their dentists 6:23

Room at the top 6:20

**SAILING** with the USS *Harry S. Truman* (CVN-75) 1:3  
 Search and rescue corpsmen: Navy medicine on land, air, sea, and in a medical clinic near you 6:7  
 Shaffer, RG, RADM, DC (Ret.), Navy dental corps: 90 years marching forward 4:10  
 Sherman, S, CDR, MC, Medical surveillance programs for homeland defense 3:14  
 Smallpox: implications and impact as a bioweapon 4:7  
 Solving a baffling mystery: getting closer to a dengue vaccine 3:2  
 Space is the next port of call for Navy docs 3:10  
 Steaming to assist at the quecreek mine disaster 5:18  
 Steaming to Assist: charlie papa 6:15  
 Strategic biodefense: a call to reinvent the hospital ship 1:33  
 Strategic biodefense: a call to reinvent the hospital ship, reprint 2:31  
 Strauss, JE, LT, MC, Quick reference guide to dietary supplements, a 1:18  
 Surgeon general's Navy medicine essay contest 2:1  
 Sobocinski, A.B.  
 Navy dental corps: 90 years marching forward 4:10  
 Widows island: the forgotten Naval hospital 2:11  
 book review  
*The First, The Few, The Forgotten: Navy and Marine Corps Women in World War I* 4:28  
**TAYLOR**, H, CDR, MC, Navy medicine steams ahead on homeland security 2:6  
 Turner, CI, CAPT, DC, Navy dental corps: 90 years marching forward 4:10

Tronic, S  
 book reviews  
*A History of Medicine in the Early U.S. Navy* 5:35  
*Two Moons* 5:34  
 Ten questions patients ask their dentist 6:23  
**VAN LANDINGHAM**, EL, Jr, CAPT, MSC (Ret.), in memoriam 2:36  
 Venverloh, D, LCDR, NC (Ret.), Benevolence survivor 1:27  
 Vietnam  
 MIA comes home, an 1:7  
 NSA station hospital, Da Nang: a personal history 1:9  
**WAR** Against Terrorism  
 Guantanamo bay reflections: spiritual readiness and the new war 3:6  
 Industrial hygienists clear the air after Pentagon terrorist attack 4:5  
 Maintaining the moral high ground: providing healthcare to Taliban and terrorist detainees 2:3  
 Medical surveillance programs for homeland defense 3:14  
 Navy medicine steams ahead on homeland security 2:6  
 Steaming to assist charlie papa 6:15  
 Unconventional medical planning: Afghanistan operations as a blueprint for Navy medicine's future 6:9  
 Welham, W, RADM, MC (Ret.), in memoriam 3:26  
 Widows island: the forgotten Naval hospital 2:11  
 Women's history month keynote speaker is RADM Bonnie Potter 3:25  
**YABLONSKY**, MJ, LT, MC, operation determined vigilance 4:18  
 You can't lie to DAVID about your measurements 4:1

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# Navy Medicine 1951



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Flight nurse student ENS Elizabeth Taylor (left) applies a dressing to a simulated patient at the School of Aviation Medicine, Gunter Air Force Base, AL.

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